Swarup Srinivasan

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EDUCATION

University of Toronto, Honors Bachelor of Science **Sep 2018 – Apr 2022**
Computer Science Co-op, Entrepreneurship Stream
CGPA: **3.86** / 4.0 – Dean's List of Academic Excellence
Teaching Assistant: Software Engineering (CSCC01), Operating Systems (CSCC69)

World topper of Computer Science, Cambridge International A levels

SKILLS

- **Languages:** Python, Java, C++, C, Go, SQL, JavaScript
- **Frameworks:** React, React Native, Spring Boot, Spark, TensorFlow, scikit-learn, Kubernetes
- **Concepts:** APIs, Distributed Systems, Agile methods, CI/CD, Machine Learning
- **Tools:** Git, Jira, Amazon Web Services, Microsoft Azure Cloud, Google Cloud

EXPERIENCE

Stripe – Software Engineer (ML Infrastructure) Sep 2022 – Present

- Developed, and iteratively improved a scalable Golang service API for secure password storage and retrieval, incorporating user feedback to allow for reliable and secure third-party service integration
- Collaborated with cross-functional teams to design and develop AWS infra using Terraform and Puppet to migrate an ML orchestration platform to Elastic Kubernetes Service on AWS
- Increased operational readiness by **100%** by implementing observability pipelines for Prometheus across multiple services and hosts on Kubernetes, and building Grafana dashboards and alerts
- Implementing node autoscaling for Kubernetes by integrating the open source Karpenter project

Google – Software Engineer Intern (Google Search Ads) Sep 2021 – Dec 2021

- Optimized the quality of Google Search Ads asset suggestions by **2%** utilizing natural language processing and information extraction to implement a filtering system to eliminate low-quality assets
- Designed and implemented C++ modules that integrate in the asset extraction pipeline in the google3 repository containing **billions** of lines of code, allowing for greater code reuse and collaboration among developers

Amazon – Software Development Engineer Intern (List as FBA) May 2021 – Aug 2021

- Designed, implemented and presented features for multiple services to optimize querying for product information with Java Spring Boot, Vue.js, DynamoDB and serverless microservice architecture with AWS Lambda
- Automated AWS Cloud infrastructure setup for inter-service networking by writing CloudFormation scripts
- Maintained code compatibility with **100%** code coverage by writing unit & integration tests using JUnit and Mockito

BlackBerry – Software Developer Intern (Security R&D) Sep 2020 – Dec 2020

- Developed a tool using WebAssembly to compile and execute a large analysis engine in-browser efficiently
- Debugged and fixed critical issues in a multithreaded threat analysis engine used by **10+** applications using C#
- Built data conversion tool with Apache Thrift RPC framework in Python for efficient data flow between **5+** services

University of Toronto – Machine Learning Engineer Intern Jan 2020 – Apr 2020

- Led development of tool to predict job finances with **86%** accuracy by using natural language processing to build machine learning models with TensorFlow and Python using Azure Databricks' distributed computing systems
- Optimized data pipeline by **67%** by creating Spark ETL jobs in Python to process **1000+** docs of **500+** words each
- Decreased MySQL query time by **15 minutes** by creating module to automate query generation

PROJECTS

Fitmotiv – (GitHub, Devpost) Jan 2021

- Fitness app to exercise with friends. **Won best use of Google Cloud** at Hack the North 2020++ out of **600 teams**
- Technology: Express.js, CockroachDB, Swift, Google Cloud, Vonage API, IBM NLU API